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# Effect of a mobile phone-based intervention on post-abortion contraception in Cambodia



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## Introduction

- Post-abortion family planning (PAFP) is important to reduce subsequent unintended pregnancies
- The objective of the MObile Technology for Improved Family Planning (MOTIF) trial was to assess the effect of a mHealth intervention on PAFP in Cambodia

## Methods

- 500 women seeking safe abortion services at 4 Marie Stopes Cambodia clinics that reported not wanting to be pregnant were randomly allocated to the intervention or to a control group
- The primary outcome was self-reported use of effective contraception (pill, intra-uterine device, implant, or injectable) at 4 and 12 months post-abortion
- Effect measures were risk ratios and hazard ratios
- We assessed contraceptive discontinuation using Kaplan-Meier survival analysis techniques

## Results

- Follow up was 86% at 4 months and 66% at 12 months
- Increased self-reported effective contraception use at 4 months but not at 12 months
- Increased long-acting contraception use at 4 and 12 months
- Some evidence of reduced discontinuation at 4 months but not at 12 months
- No significant difference in repeat pregnancies or abortions at 4 or 12 months

## Conclusions

- Adding a mobile phone-based intervention to abortion care services in Cambodia had a short-term effect on the overall use of effective contraception
- Increased use of long-acting contraception methods lasted throughout the study period

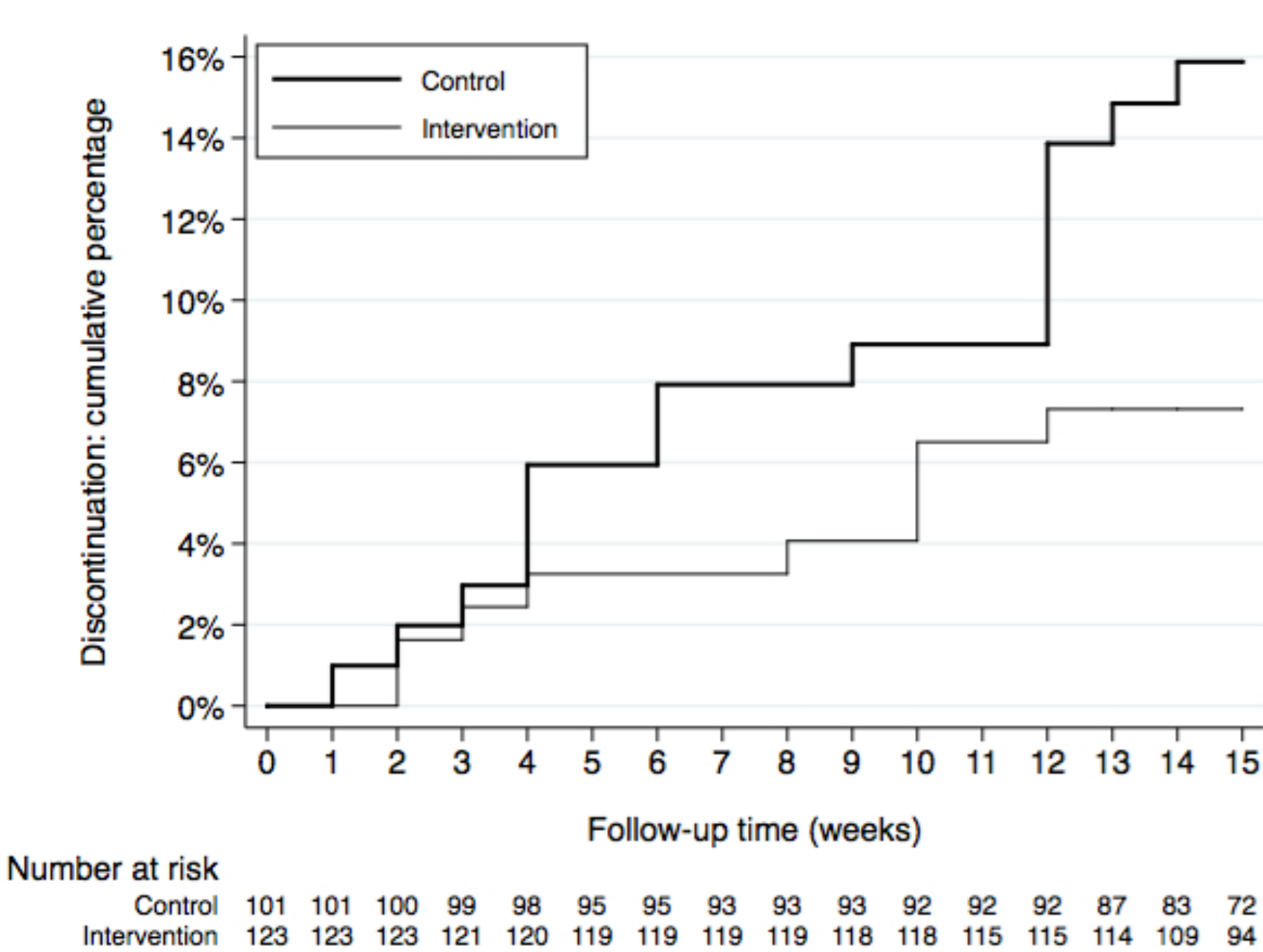
### MOTIF intervention

Six automated voice-messages (using the open-source programme ‘Verboice’) to participants’ mobile phones over the three-month post-abortion period in the Khmer (Cambodian) language, as follows:

*‘Hello, this is a voice message from a Marie Stopes counsellor. I hope you are doing fine. Contraceptive methods are an effective and safe way to prevent unplanned pregnancy. I am waiting to provide free and confidential contraceptive support to you. Press ‘1’ if you would like me to call you back to discuss contraception. Press ‘2’ if you are comfortable with using contraception and you do not need me to call you back this time. Press ‘3’ if you would prefer not to receive any messages again’*

Clients who pressed ‘1’, or who did not respond, received a phone call from a counsellor to provide support for post-abortion contraception

### Contraceptive discontinuation at 4 months



### Primary and secondary outcomes

Outcome	4 month follow up			12 month follow up		
	Intervention n(%)	Control n(%)	RR* (95% CI)	Intervention n(%)	Control n(%)	RR* (95% CI)
Primary outcome						
Effective contraceptive use	135 (64%)	101 (46%)	1.39 (1.17-1.66)	84 (50%)	68 (43%)	1.16 (0.92-1.47)
Secondary outcomes						
Long-acting contraception use	61 (29%)	19 (8.6%)	3.35 (2.07-5.40)	42 (25%)	19 (12%)	2.08 (1.27-3.42)
Contraceptive discontinuation	9 (7%)	16 (15.8%)	0.45 (0.20-1.01)	28 (26%)	25(30%)	0.82 (0.48-1.40)
Repeat pregnancy	6 (3%)	5 (2%)	1.25 (0.39-4.06)	22 (26%)	28 (18%)	0.74 (0.44-1.24)
Repeat abortion	2 (1%)	1 (0.5%)	2.10 (0.19-22.9)	8 (5%)	11 (7%)	0.68 (0.28-1.66)

\*Hazard ratio for contraceptive discontinuation

### Participant information card



### Counsellors



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**Ethics:** LSHTM, MSI and Cambodia Human Research ethics committees

**Study protocol:** Smith C et al. MObile Technology for Improved Family Planning services (MOTIF): study protocol for a randomised controlled trial. Trials. 2013;14(427):1–9

**Trial registration:** ClinicalTrials.gov, NCT01823861  
**Study results:** Bulletin of the World Health Organization (Dec 2015)

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